

Application No. 10/709,241
Amendment date January, 2005
Reply to Office Action of October 28, 2004

REMARKS/ARGUMENTS

Claims 1, 10, 11, and 19 are amended. Claim 20 has been withdrawn. New claim 21 has been added. Support for new Claim 21 is found in Fig. 1 and 2, and in para. 0028. No new matter has been added. No additional claim fees are believed due. Applicants request entry of the above amendments to the claims.

1. Restriction Requirement

Applicants have provisionally elected with traverse to prosecute the invention of Group I, claims 1-19, drawn to a vertical lift assembly. Claim 20 is withdrawn. The examiner states that the inventions are distinct because they are related as sub-components disclosed as usable together in a single combination. The subcomponents are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as merely lifting an object that is resting on the upper surface of the lift, not receiving a conveyed object and then diverting the object as invention I. See MPEP 806.05 (d). The Applicants respectfully traverse the restriction requirement.

Applicants first disagree that both inventions I and II are subcombinations. Applicants request that the examiner explain his analysis. A more reasonable analysis is that of Invention I as a combination (of a vertical lifting assembly, and a conveyor) and of Invention II as subcombination (the vertical lifting assembly only). Under MPEP 806.05 (c), the inventions can not be distinct because, Applicants admit, the combination (Claims 1-19) requires the subcombination (the vertical lifting device as generically claimed in Claim 20) for patentability. Since the inventions are not distinct, restriction is improper.

2. Objections under 35 USC 112

The Examiner has objected to claims 1, 10, 11, and 19 based on several informalities. Applicants believe that the amendments have addressed and satisfied the examiner's claim objections. Applicants note for the record that such changes relate only to the examiner's informal objections to the wording of the claims, and do not relate to the patentability of the invention.

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3. Rejections under 35 USC 102(b)

The Examiner has rejected claims 1, 2, 8-12 and 14-19 under 35 USC 102(b) as anticipated by Dunifon et al (US Patent 5,927,469). The examiner has made notations regarding elements in figures 8 and 9 of Dunifon, which he believes anticipate the elements of Applicants' claims. Specifically, the examiner defines the following element numbers in Dunifon below with the alleged corresponding element of the Applicants' claimed invention:

<u>Element No.</u>	<u>Examiner's interpretation as an equivalent</u>
77	raisable member
94	stationary member
95	lift means
98	1st stationary joint (right-side device)
99B	2nd joint (right-side device)
99C	3rd intermediate joint (right-side device)
99E	2nd joint (left-side device)
99F	3rd intermediate joint (left-side device)
99I	stopping means

Applicants respectfully traverse the rejection. Applicants' claims provide a hinge with a first pivoting joint joined to the base frame, a second pivoting joint joined to the raisable frame, and a third pivoting joint there between. The lift means is claimed as a distinct element, apart from the plurality of hinges.

Dunifon shows in FIG. 7 and 8 an apparatus that uses a hydraulic piston or lift (95) to rotate axially a torque tube (99) through bearing blocks (98) secured to the "stationary member" (94). The torque tube (99) has arms (output links 99G) that are hinged (pin 99H) to rigid extension members (base links 99I) extending down from the raisable member (77). The lifting device of Dunifon therefore shows the shaft (97) of the torque tube (99) as a first pivoting joint secured to the stationary member, and the pin (99H) as the second pivoting joint affixed through the extending member (99I) to the raisable member (77), but does not show, or suggest, a third pivoting joint intermediate the first and second joints.

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The Examiner incorrectly identifies the pins (99B and 99E) as the "2nd joint". These pins are associated with a cross-over shaft (99D) that transmits the torque applied to the right-side torque tube (99) to the left-side torque tube. The examiner also incorrectly identifies the output and input links (99C or 99F) as the "3rd intermediate joints". First, they are not joints; they are links. Second, they associate with an alleged joint (99B or 99E) that is not affixed to either the stationary member (94) or the raisable member (77). The sole function of the link elements 99C and 99F and the pivoting joints 99B and 99E is to transfer torque from the first torque tube 90 (on the right side of FIG. 8) to the second torque tube (on the left side). None of these elements are situated between the stationary and raisable members, as required by Applicants' claims.

The torque tube of Dunifon is a rigid device, with three links (input link 99A, output link 99C and output link 99G) rigidly secured to the torque tube 99. Between the stationary member and the raisable member of Dunifon, there are only one link arm (99G) and only two pivoting joints, on either end of the link arm: the shaft (97) rotating in the bearing block (98), and the pin (99H).

Consequently, Dunifon does not anticipate nor make obvious Applicants' claimed invention.

4. Rejections under 35 USC 103(a)

The Examiner has rejected claims 3-7 and 13 under 35 USC 103(a) as being obvious in view of Dunifon et al (US Patent 5,927,469). The examiner states that Dunifon does not disclose a roller chain as its hinge, and that it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a roller chain in the device of Dunifon, since the examiner took Official Notice of the equivalence of the two mentioned hinges and their equal function in the mechanical arts and the selection of any of these known equivalents would be well within the level of ordinary skill in the art.

Applicants respectfully traverse the rejection. Applicants' point out that, since claim 3 is dependent upon Claim 1, Applicant will analyze the rejection of Claim 3 as pertaining to a roller chain having the limitations of the hinge of Claim 1. In such case, the examiner's taking of Official Notice of the equivalency of these two types of hinges is improper. The examiner mistakenly assumes that the linkage disclosed in Dunifon, having one link arm and two joints

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(see discussion above), is equivalent to and can be replaced by Applicants' hinge. Thus, Applicants' invention employing Applicants' hinge (as claimed in all of Applicant's pending claims) is not obvious to one of ordinary skill in the art in view of Dunifon.

If one can envision replacement of Dunifon's linkage with Applicants' hinge, then it would become obvious that rotation of the torque tube (99) could not raise the raisable member (77); instead, it would rotate the intermediate joint about the torque tube and jamb. (Applicant can provide a sketch of this envisioned device at the examiner's request.) It also becomes clear that a lifting means equivalent to the one used by Dunifon (that is, an hydraulic piston/torque tube that rotates the hinge link associated with the stationary member) would not function in Applicant's claimed apparatus to raise the raisable member.

Likewise, the linkage of Dunifon can not be equivalently substituted for the Applicants' hinge. If Applicant were to install a linkage with only two joints, the relationship of the raisable member to the stationary member would become fixed, with each hinge attachment of the former pivoting about the corresponding hinge attachment of the latter. Figure 7 of Dunifon shows that when the hydraulic piston is activated, torque tube (99) will rotate link arm (99G) (for example, clockwise in Fig. 8), which causes joint pin (99H) to rotate (clockwise) around the axis of the shaft (97) in a direction upward and eventually to the right. Consequently, since base link (99I) is rigidly affixed to joint pin (99H) and to the bottom of raisable member (77), the raisable member and associated conveying apparatus must also move upward and to the right. Dunifon does not mention this inevitable result, perhaps because the arc distance that the revolving joint pin (99H) was intended to be generally straight upward and only a very short distance. However, if the raisable member of Dunifon were to be raised a greater height, it would pivot upward and to the right. In contrast, the claimed hinges of Applicants' raisable conveyor allow the raisable member to be raised straight upward by the lifting means.

Consequently, Applicants contend that the invention is not obvious in view of Dunifon, since one could not operate the device of Dunifon if one replaced Dunifon's linkage with Applicants' hinge, and since Applicant's device with Dunifon's linkage (in place of Applicants' hinge) would not function in the same way or provide the same result.

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Conclusion

In conclusion, the Applicants request reconsideration of the rejections in view of the remarks contained herein, withdrawal of the restriction requirement, and a prompt allowance of all claims as amended.

Respectfully submitted,

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January 26, 2005